BAZUG 83

FEBRUARY V:2, N:2

BAY AREA ZX80/81, TS 1000/2000 USERS

COMPUTER FAIRE's a'comin'

This is another reason we're lucky to live in the Bay Area -- the world's largest micro-computer show, Computer Faire, is an annual San Francisco event. Each year has been bigger, and this is the eighth year. I expect total filling of both the SF Civic Auditorium building and its associated Brooks Hall.

Only Sinclair was missing last year They had bought a big booth, did not arrive. However, Computer Continuum and IBM were there, with everyone else in the industry. Hardware, software, firmware, attachments, parts, books and people. lots of those. Many. People with questions, people with answers...

I brought home incredible numbers of catalogs, lots of answers, some new questions, some books at discount, and some real bargains in hardware. If you like to haggle, be sure to make Sunday afternoon, when vendors are facing the hard choice of sell it or pack it up...

So make sure you have comfortable shoes and reserve the dates of March the 18th, 19th & 20th; Friday thru Sunday. 9 am to 6 pm. For additional inducement there are many free seminars for mental stimulation (or resting your feet...) A bargain at the gate of $15, 3 days.

For loyal members of BAZUG, we have a limited number of tickets at $12.50, now, on hand, for cash. See Woody Mcp.

If there is enough demand more can be obtained thru the same channels.

BOOK REVIEW

Mastering Machine Code on Your ZX81 by Toni Baker, Reston Publ. Co., $12.95

Learning BASIC is quite exciting to the novice who is introduced to computing by the Sinclair BASIC Manual. It will not be long, however, before the limitations of BASIC are evident. His or her programs run slowly and use up large amounts of memory. The beginner will also soon learn that practically all of the really first class commercial programs are written in machine code. Machine code is the language that the Z80A microprocessor of the ZX81 understands directly. It is relatively fast and memory efficient.

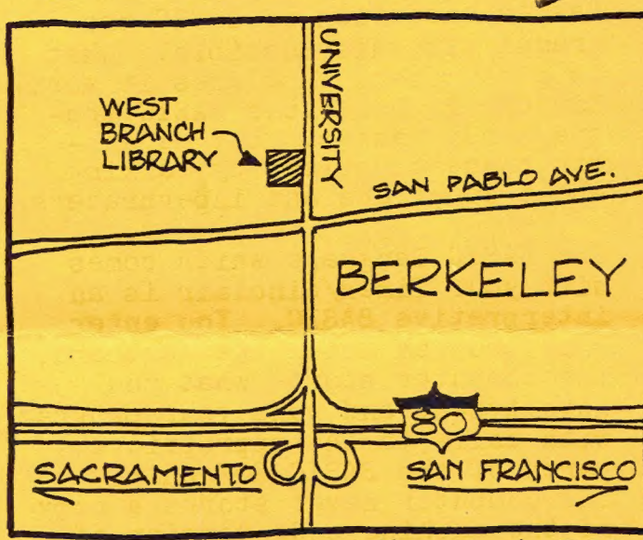
Learning machine code on the ZX81 has been a difficult task until this book came along. Sync and Syntax ran articles on various aspects of macinine code, but they have been hard for the beginner to follow. Toni Baker has put together a manual that you can use to sit down at your computer and learn machine code fundamentals.

Machine code is much harder to learn than BASIC. It is a series of numbers from 0 to 255 that are coded instructions for the Z80A. It is hard for people to relate to numbers, so each instruction has a word like representation or opcode (e.g. 201 in machine code can be represented by RET which is similar to the BASIC RETURN). BASIC and the other so-called high level languages

CONTINUED ON PAGE 3

NEXT MEETING

THURS



FEBRUARY 17TH, Meeting starts 7:30pm
West Branch Berkeley Library

BAZUG 83 READER SURVEY
****

NAME: _____

ADDRESS: _____

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ZIP CODE _____

PHONE NUMBER: ( ) - ____ ____ _____

HARDWARE:
- TIMEX/SINCLAIR ( )
- ZX/81 ( )
- ZX/80 ( )
- MICRO ACE ( )
- 1K RAM ( )
- 2K RAM ( )
- 4K RAM ( )
- 16K RAM ( )
- 64K RAM ( )

OTHER: _____

_____

PRINTER ( )

****
MEMBERSHIP - SUBSCRIPTION SURVEY

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( ) I WOULD LIKE TO BECOME A MEMBER OF BAZUG AND RECEIVE THE NEWSLETTER

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The New Compilers

In looking through the latest Timex/Sinclair magazine ads, I have seen some new software for sale (M Coder, ZXPRESS, Berch's Compiler, ect.). These programs are BASIC compilers. The ads claim 20 to 50 times faster execution of BASIC programs. Is this possible? What is a compiler? How does it work? How can it help your BASIC programs run faster? Let me answer these questions by talking about compilers and interpreters.

The BASIC language which comes with your Timex/Sinclair is an interpretive BASIC. You enter your program using the keyboard, the computer stores what you have typed, and runs your program with calls to the appropriate parts of the BASIC ROM chip. The computer never stores a copy of the machine code version of your program in memory.

This is different than a compiler which takes the program you have entered and converts it into a machine code program which is saved in memory. Because the compiler has saved the machine code version of your program in memory, it does not have to look at and translate your BASIC program more than once. The interpretive BASIC, however, must translate your BASIC program into machine code every time it looks at it.

Here is an illustration that will help show the difference between an interpreter and a compiler: A friend of mine has written me a letter. I would like to read it except it is written in a foreign language. No problem, I'll use my dictionary to translate the letter.

Several hours later...

The letter is a chain letter! My friend wants me to send ten copies of the letter to my friends. I copy the letter over (in ENGLISH this time) and address it to my friend number one. Now, if I were an interpreter, I would mail the letter off and start all over translating the letter. In fact, an interpreter would spend several hours translating the letter each of ten times! It's as though the interpreter forgot, rather didn't remember, that he had already figured out what the letter had said! Luckily, I am a compiler. When I made the translation the first time I remembered to keep a copy of the translation. Now all I have to do to get 10 copies is to copy the letter 10 times. Copying is a much simpler and faster way to get the letters done.

It is the same way between an interpretive BASIC and a compiled BASIC. With the BASIC on the Timex/Sinclair computer, much of the computer's time is spent translating your BASIC program into machine language over and over again! The compilers for sale translate your BASIC program into machine language only once. Then, when you run the compiled version of your BASIC program, the computer wastes no time trying to figure out what you want it to do!

I have not tried any of the advertised compiler programs and so cannot vouch for their claims of 20 to 50 times faster execution. Also, there are differences between the compilers being sold. Some are very limited. They can only compile a few of the BASIC commands. I hope someone with one of these compilers will soon write a program evaluation for us, complete with tests of speed increases for some simple programs.

For Yur Edukashun

There will be a demonstration at the next meeting on how VU-CALC can solve the world's problems. The famous Mr. I.R.S. March will give a talk on how to use VU-CALC to do your taxes. In this demonstration you will see the power and simplicity of spread sheet programs. Blossom with the times and be there or be out of it! Until then, adios!

Jim

CLUB PROJECT ☆☆☆

Jim March's idea about "SYNC TAPES" was presented by Rick Link. Listed one tape through members efforts. It programs from the latest issue of you have copies or are interested in "SYNC" are to be made available on members will be able to get copies for a small fee.

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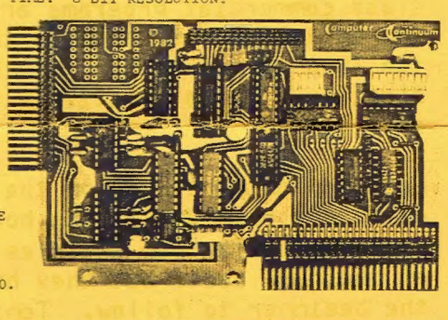

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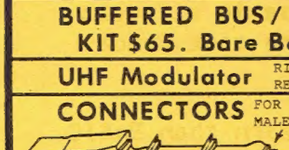

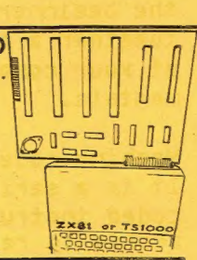

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— CONTINUED FROM PAGE 1 —

ultimately have to be translated into machine code which explains why machine code is more efficient.

Master Machine Code is far from perfect. It sorely needs an index since you are constantly refering back through the book. In many areas a more step-by-step approach would be helpful. Some programs introduce concepts that are not adequately explained, but the book is arranged in such a way that the reader can work through the problems. The book works with hexadecimal numbers instead of the more familiar decimal numbers. This is quite common in programming and Ms. Baker adequately explains hexadecimal for those unfamiliar with the 16 based system. It would have been helpful to include a system for using both number systems since both are commonly used in machine code articles.

Ultimately the book works quite well. It does take a bit of dedcation to learn machine code, but you can accomplish the task by studying this book. It is a valuable skill for anyone at all serious about programming and this is the best resourse currently available for the beginner.

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Personal Computer World, a very good British magazine is periodically available at Delauers News Agency at 14th & Broadway in Oakland. The British seem to have a thriving computer industry including several machines that compete with Sinclair for the low cost market. The Jan. issue had a Benchtest of the Jupiter Ace, a micro similar to the Sinclair except that its principal language is FORTH. The issue also had a review of 7 games for the Spectrum. the best game appeared to be Hungry Horace. This was a Pacman derivative (not rip-off) with excellent graphics and inventive rules.

Joel Brody

******HELP REVIEW TIMEX/SINCLAIR SOFTWARE*******

Tired of being ripped-off? Anyone who has bought T/S software from just ad descriptions has learned that a lot of the available material is pure, unadulterated crap. For every gem like Vu-calc or Mazogs there are several duds written by computer illiterates who think they are geniuses because they can make a blip move across the screen.

You can help fight the Computer Blahs by filling out the form provided here. Rate any and all commercial programs you own or have used. We will compile the results and publish them here.

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R U M O R S from the Editor's desk

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A rather reliable source has passed on some interesting information concerning Timex's new products and their release dates.

The long awaited Timex/Sinclair printer is to be on store shelves as of February 15th . . . those store shelves being Macy's of New York. We should see the printer by the end of February.

The Timex 2000 is no longer the 2000 we saw in the color brochure at last month's meeting. It has been stretched to accept a "space bar" and (if I understand my source) what looks like an on board stringy-floppy all for the previously mentioned low price of $199.95. Unfortunately all of this retooling to make a successful market entry has pushed the 2000's release date back to June. My source said to watch how the 2000 is presented at upcoming trade shows, the more sophisticated the technical set-up (no mock-ups) the closer it is to being in our stores and in our hands.

The Timex 1500 has taken on the shape the 2000 previously owned. It will still be BW and have an onboard 16K RAM. It will also retail for a suggested $99.95. Don't worry about the 1000, it will continue production but at a much reduced $59.95 sugg. ret. price.

My source has also stated that Timex has made a firm commitment to maintain software prices below $25 and to retail the least expensive hardware including peripherals. It sounds to me (and my pocket) like I will just have to be patient.

Dick Link

Note: That is 48K Color for $199.95!

2000 or 1500? You guess!

SINCLAIR/TIMEX SOFTWARE REVIEW

TITLE:_____

COMPANY/AUTHOR:_____ DELIVERY TIME (MAIL ORDER):_____

DISTRIBUTOR:_____

PRICE:_____

TYPE OF PROGRAM (GAME, BUSINESS APPLICATION, ETC.):_____

Rate the program on a 1 to 10 scale (1-awful;5-competent;10-excellent):

CONCEPT OF PROGRAM..._____ ADDITIONAL COMMENTS:_____

EASE OF USE....._____ _____

DOCUMENTATION....._____ _____

OVERALL RATING....._____ _____

GRAPHICS QUALITY...._____ _____

Send to: Joel Brody, 3934 Whittle Ave., Oakland, CA 94602

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COMMENTS on the January 20th Meeting
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Last month at the West Branch Library our meeting had a carnival atmosphere. Sunset Electronics (see ad) was in attendance along with a fair sampling of products for the Timex/Sinclair user. Sam Barron, the Timex rep for our area, was also a special guest. He supplied Timex t-shirts as prizes to encourage attendees to fill out and turn in our newsletter survey. He also provided a few answers about what Timex is doing with the 2000 and other products. He was not able to bring in a working sample but has promised he will as soon as possible. We did get a hands on experience with the new thermal printer ($99.95). It is a very nice machine compared to the original from England.

A planning committee for a "Bay Area Timex/Sinclair Fair" is forming. Sam Barron is checking with Timex to see how they can help. Hopefully the other user groups in the area will join in the production of this major undertaking. Sam said August would be a good month to have industry participation including those geared to Timex 2000 users; the 2000 should be a few months old by then. If you are interested in helping or have information that will help, please contact Rick Link. Other user groups have talked about this idea and might be farther along in developement. If so, we will try to work with them to bring this off as a major success.

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REPORT ON THE COMPUTER SWAP IN AMERICA
by Woody McPheeters

At the County Fairgrounds in San Jose last Saturday, Feb. 5, I occasionally looked around for friends, but only saw two. Eric the Fearless Reiter was there, with a booth. Unfortunately, he was closing up by the time I got there; as was the Swap Meet itself. I spent 3 full hours "at work" and managed to see about 60% of the displays--and had a very good time. At an entry fee of $5, it was well worth it for a day out of fun. Sinclair users are still pretty well separated from the main stream of computer users and freaks.

The Swap Meet is self-described as a "High-Technology Flea Market & Mini Show for Personal Computing Enthusiasts" and it is an accurate description. Both well known firms and individuals cleaning their electronic garages have booths there. Haggling is a way of life. I won't tell what I bought, till I'm ready to display it in action. Then I'll be obnoxious, to the tune of: "Look what I've got working, for only XX hours of smart labor and YY dollars.." Of course, if I don't get it working, you'll hear no more about it. It's mostly for hardware types, but if that means you, don't miss it next time.

BAZUG 83 FEB. V:2, N:2
BAY AREA ZX80/81, TS 1000/2000 USERS

We are a non-profit newsletter serving Timex/Sinclair users in the San Francisco - Oakland Bay Area.

Jim March - President
B. Buchanan - Treasurer
Rick Link - Editor
Joel Brody
Woody McPheeters
- contributors

Please send all questions, adv., articles by the first of the month to: Bazug
654 40th St.
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